Geometry Name_____ ID: 1

Post Test Algebra Review #1

Date_____ Block____

Evaluate each expression.

1) $25 \div 5 \cdot -10$

2) $(-3 + -7 + 4) \div (-3 \cdot -1)$

Solve each equation.

3) $b - 3b = -14$

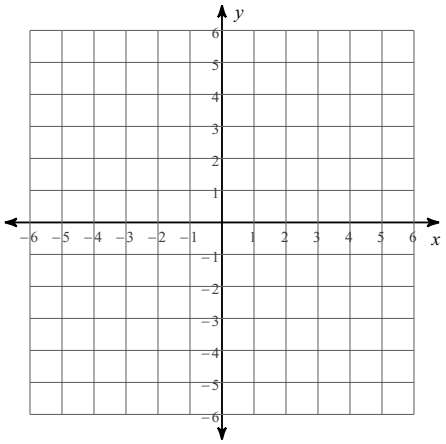
4) $6(3 + 6x) = -90$

5) $-31 + 4r = -(7 - 7r)$

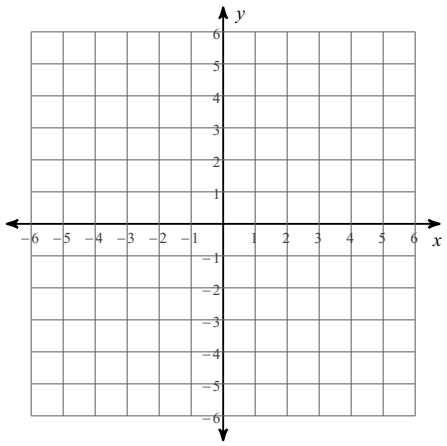
6) $1 + 3n = 10 + 6n$

Sketch the graph of each line.

7) $y = \frac{7}{5}x - 5$



8) $4x - 5y = -5$



Write the slope-intercept form of the equation of each line given the slope and y-intercept.

9) Slope = 3, y-intercept = 1

Write the slope-intercept form of the equation of the line through the given point with the given slope.

10) through: $(5, -5)$, slope $= -\frac{7}{2}$

Write the slope-intercept form of the equation of the line through the given points.

11) through: $(-1, 5)$ and $(0, -5)$

Solve each system by substitution.

12) $y = -7x - 11$
$-4x - 5y = 24$

Solve each system by elimination.

13) $-9x + 6y = 0$
$-7x + 10y = 0$

Factor each completely.

14) $x^2 - 9$

15) $b^2 - 11b + 18$

16) $5x^2 + 25x - 70$

17) $2x^2 + 8x - 120$

Simplify. Your answer should contain only positive exponents.

18) $-4y^2 \cdot 4y^3$

19) $(-3a^3b^3)^3$

20) $\frac{-3nm^2}{-4m^4}$

21) $\frac{-4u^4v^{-2}}{-3u^2v^2}$

Geometry Name_____ ID: 1

Post Test Algebra Review #1

Date_____ Block____

Evaluate each expression.

1) $25 \div 5 \cdot -10$

-50

2) $(-3 + -7 + 4) \div (-3 \cdot -1)$

-2

Solve each equation.

3) $b - 3b = -14$

$\{7\}$

4) $6(3 + 6x) = -90$

$\{-3\}$

5) $-31 + 4r = -(7 - 7r)$

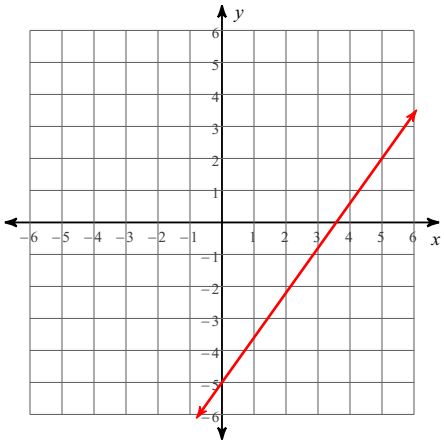
$\{-8\}$

6) $1 + 3n = 10 + 6n$

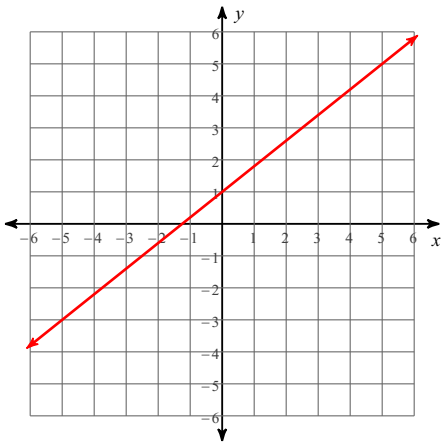
$\{-3\}$

Sketch the graph of each line.

7) $y = \frac{7}{5}x - 5$



8) $4x - 5y = -5$



Write the slope-intercept form of the equation of each line given the slope and y-intercept.

9) Slope = 3, y-intercept = 1

$y = 3x + 1$

Write the slope-intercept form of the equation of the line through the given point with the given slope.

10) through: $(5, -5)$, slope $= -\frac{7}{2}$ $y = -\frac{7}{2}x + \frac{25}{2}$

Write the slope-intercept form of the equation of the line through the given points.

11) through: $(-1, 5)$ and $(0, -5)$

$y = -10x - 5$

Solve each system by substitution.

12) $y = -7x - 11$
$-4x - 5y = 24$

$(-1, -4)$

Solve each system by elimination.

13) $-9x + 6y = 0$
$-7x + 10y = 0$

$(0, 0)$

Factor each completely.

14) $x^2 - 9$

$(x - 3)(x + 3)$

15) $b^2 - 11b + 18$

$(b - 2)(b - 9)$

16) $5x^2 + 25x - 70$

$5(x - 2)(x + 7)$

17) $2x^2 + 8x - 120$

$2(x - 6)(x + 10)$

Simplify. Your answer should contain only positive exponents.

18) $-4y^2 \cdot 4y^3$

$-16y^5$

19) $(-3a^3b^3)^3$

$-27a^9b^9$

20) $\frac{-3nm^2}{-4m^4}$ $\frac{3n}{4m^2}$

21) $\frac{-4u^4v^{-2}}{-3u^2v^2}$ $\frac{4u^2}{3v^4}$

